

What is claimed is:

1. A method of treating an inflammatory disease by administering a therapeutically effective amount of a PRO301, PRO362 or PRO245 antagonist, or fragment thereof.

2. The method of claim 1 wherein the antagonist is an antibody.

3. The method of claim 2 wherein the antibody is a monoclonal antibody.

4. The method of claim 3 wherein the antibody has non-human complementarity determining region (CDR) residues and contains human framework region (FR) residues.

5. The method of claim 4 wherein the antibody is a composition in admixture with a pharmaceutically acceptable carrier or excipient.

6. The method of claim 5 wherein the inflammatory disease is selected from the group consisting of: inflammatory bowel disease; systemic lupus erythematosus; rheumatoid arthritis; juvenile chronic arthritis; spondyloarthropathies; systemic sclerosis, for example, scleroderma; idiopathic inflammatory myopathies for example, dermatomyositis, polymyositis; Sjögren's syndrome; systemic vaculitis; sarcoidosis; autoimmune hemolytic anemia for example, immune pancytopenia, paroxysmal nocturnal hemoglobinuria; autoimmune thrombocytopenia, for example, idiopathic thrombocytopenic purpura, immune-mediated thrombocytopenia; thyroiditis, for example, Grave's disease, Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic thyroiditis; diabetes mellitus, immune-mediated renal disease, for example, glomerulonephritis, tubulointerstitial nephritis; demyelinating diseases of the central and peripheral nervous systems such as multiple sclerosis, idiopathic polyneuropathy; hepatobiliary diseases such as infectious hepatitis such as hepatitis A, B, C, D, E and other nonhepatotropic viruses; autoimmune chronic active hepatitis; primary biliary cirrhosis; granulomatous hepatitis; and sclerosing cholangitis; inflammatory and fibrotic lung diseases (e.g., cystic fibrosis); gluten-sensitive enteropathy; Whipple's disease; autoimmune or immune-mediated skin diseases including bullous skin diseases, erythema multiforme and contact dermatitis, psoriasis; allergic diseases of the lung such as eosinophilic pneumonias, idiopathic pulmonary fibrosis and hypersensitivity pneumonitis, transplantation associated diseases including graft rejection and graft-versus host disease.

7. A method for determining the presence of a PRO301, PRO362 or PRO245 polypeptide comprising exposing a cell suspected of containing the polypeptide to an anti-PRO301, anti-PRO362 or anti-245 antibody and determining the binding of the antibody to the cell.

8. A method of diagnosing an inflammatory disease in a mammal, comprising detecting the level of expression of a gene encoding a PRO301, PRO362 or PRO245 (a) in a test sample of tissue cells obtained from the mammal, and (b) in a control sample of known normal tissue cells of the same cell type, wherein a higher expression level in the test sample indicated the presence of an inflammatory disease in the mammal.

9. A method of diagnosing an inflammatory disease in a mammal, comprising: (a) contacting an anti-PRO301, anti-PRO362 or anti-PRO245 antibody with a test sample of tissue culture cells obtained from the mammal, and (b) detecting the formation of a complex between the antibody and the PRO301, PRO362 or PRO245 polypeptide.

10. A method of for inhibiting the growth of tumor cells comprising exposing a cell which overexpresses a PRO301, PRO362 or PRO245 polypeptide to an effective amount of an agent inhibiting the expression and/or activity of the PRO301, PRO362 or PRO245 polypeptide, respectively.

11. The method of claim 10 wherein said agent is an anti-PRO301, anti-PRO362 or anti-PRO245 antibody.

12. The method of claim 11, wherein said tumor cells are further exposed to radiation treatment or a cytotoxic or chemotherapeutic agent.

13. A method diagnosing tumor in a mammal, comprising detecting the level of expression of a gene encoding a PRO301, PRO362 or PRO245 polypeptide (a) in a test sample of tissue cells obtained from the mammal, and (b) in a control sample of known normal tissue cells of the same cell type, wherein a higher expression level in the test sample indicates the presence of tumor in the mammal from the test tissue cells were obtained.

14. A method of diagnosing tumor in a mammal, comprising (a) contacting an anti-PRO301, anti-PRO362 or anti-PRO245 antibody with a test sample of tissue cells obtained from the mammal, and (b) detecting the formation of a complex between the anti-PRO301, anti-PRO362 or anti-PRO245 antibody and the PRO301, PRO362 or PRO245, respectively, in the test sample.

15. The method of claim 14 wherein said test sample is obtained from an individual suspected to have neoplastic cell growth or proliferation.

16. An isolated antibody which binds a PRO301 or PRO362 polypeptide.

17. The antibody of claim 16 which is a monoclonal antibody.

18. The antibody of claim 17 which contains non-human complementarity determining region (CDR) residues and human framework region (FR) residues.

19. The antibody of claim 18 which is labeled.

20. The antibody of claim 19 which is immobilized on a solid support

21. The antibody of claim 16 which is an antibody fragment, a single-chain antibody, or an anti-idiotypic antibody.

22. A composition comprising the antibody of claim 21 in admixture with a pharmaceutically-acceptable carrier.

23. The composition of claim 22 further comprising a second antibody or a cytotoxic or chemotherapeutic agent.

24. Isolated nucleic acid comprising DNA having at least a 95% sequence identity to (a) a DNA molecule encoding a PRO301 polypeptide comprising the sequence of amino acids 28 to 235 of Fig. 2 (SEQ ID NO: 1).

25. The isolated nucleic acid of claim 24 comprising DNA having at least a 95% sequence identity to (a) a DNA molecule encoding a PRO301 polypeptide comprising the sequence of amino acids 28 to 258 of Fig. 2 (SEQ ID NO: 1), or (b) the complement of the DNA molecule of (a).

26. The isolated nucleic acid of claim 25 comprising DNA having at least a 95% sequence identity to (a) a DNA molecule encoding a PRO301 polypeptide comprising the sequence of amino acids 28 to 299 of Fig. 2 (SEQ ID NO: 1), or (b) the complement of the DNA molecule of (a).

27. The isolated nucleic acid of claim 26 comprising DNA having at least a 95% sequence identity to (a) a DNA molecule encoding a PRO301 polypeptide comprising the sequence of amino acids 1 to 299 of Fig. 2 (SEQ ID NO: 1), or (b) the complement of the DNA molecule of (a).

28. The isolated nucleic acid of claim 24 comprising DNA encoding a PRO301 polypeptide having amino acid residues 28 to 235 of Fig. 2 (SEQ ID NO: 1).

29. The isolated nucleic acid of claim 28 comprising DNA encoding a PRO301 polypeptide having amino acid residues 28 to about 258 of Fig. 2 (SEQ ID NO: 1).

30. The isolated nucleic acid of claim 29 comprising DNA encoding a PRO301 polypeptide having amino acid residues 28 to 299 of Fig. 2 (SEQ ID NO: 1).

31. The isolated nucleic acid of claim 30 comprising DNA encoding a PRO301 polypeptide having amino acid residues 1 to 299 of Fig. 2 (SEQ ID NO: 1).

32. Isolated nucleic acid comprising DNA having at least 80% sequence identity to (a) a DNA molecule encoding a PRO362 polypeptide comprising the sequence of amino acid residues 1 to 321 of Figure 3 (SEQ ID NO: 2), or (b) the complement of the DNA molecule of (a).

33. The nucleic acid of Claim 32, wherein said DNA comprises the nucleotide sequence of SEQ ID NO: 8 or its complement.

34. The nucleic acid of Claim 32, wherein said DNA comprises nucleotides 119-1081 of the nucleotide sequence of SEQ ID NO: 7.

35. An isolated nucleic acid comprising DNA having at least a 95% sequence identity to (a) a DNA molecule encoding the same mature polypeptide encoded by the cDNA in ATCC Deposit No. 209432 (designation: DNA40628-1216), or (b) the complement of the DNA molecule of (a).

36. The isolated nucleic acid of claim 35 comprising then PRO301 encoding sequence of the cDNA in ATCC deposit No. (designation: DNA40628-1216), or a sequence which hybridizes thereto under stringent conditions.

37. Isolated nucleic acid comprising DNA having at least an 80% sequence identity to (a) a DNA molecule encoding the same mature polypeptide encoded by the human protein cDNA in ATCC Deposit No.: 209620 (DNA45416-1251), or (b) the complement of the DNA molecule of (a).

38. The nucleic acid of Claim 37 which comprises a DNA molecule encoding the same mature polypeptide encoded by the human protein cDNA in ATCC Deposit No.: 209620 (DNA45416-1251).

39. Isolated nucleic acid comprising DNA having at least an 80% sequence identity to (a) a DNA molecule encoding a PRO362 polypeptide comprising the sequence of amino acid residues 1 to X of Figure 3 (SEQ ID NO: 2), or (b) the complement of the DNA molecule of (a), wherein X is any one of amino acid residues 271 to 280 of Figure 3 (SEQ ID NO: 2).

40. A process for producing PRO301, PRO362 or PRO245 polypeptides comprising culturing a host cell under conditions suitable for expression of PRO301, PRO362 or PRO245 and recovering PRO301, PRO362 or PRO245, respectively, from the cell culture.

41. Isolated native sequence PRO301 polypeptide comprising amino acid residues 28 to 235 of Fig. 2 (SEQ ID NO: 1).

42. The isolated native sequence PRO301 polypeptide of claim 41 further comprising amino acid residues 28 to about 258 of Fig. 2 (SEQ ID NO: 1).

43. The isolated native sequence PRO301 polypeptide of claim 42 further comprising amino acid residues 28 to 299 of Fig. 2 (SEQ ID NO: 1).

44. The isolated native sequence PRO301 polypeptide of claim 43 further comprising amino acid residues

1 to 299 of Fig. 2 (SEQ ID NO: 1).

45. Isolated native sequence PRO301 polypeptide encoded by the nucleic acid deposited under accession number ATCC 209432.

5

46. Isolated native sequence PRO362 polypeptide comprising amino acid residues 1 to 229 of Figure 3 (SEQ ID NO: 2).

47. Isolated PRO362 polypeptide comprising amino acids 1 to X of the amino acid sequence shown in  
10 Figure 3 (SEQ ID NO: 2), wherein X is any one or amino acids 271 to 280.

48. Isolated PRO362 polypeptide encoded by the cDNA insert of the vector deposited as ATCC Accession No. 209432 (DNA45416-1251).